

# Service Manual

Cassette Deck

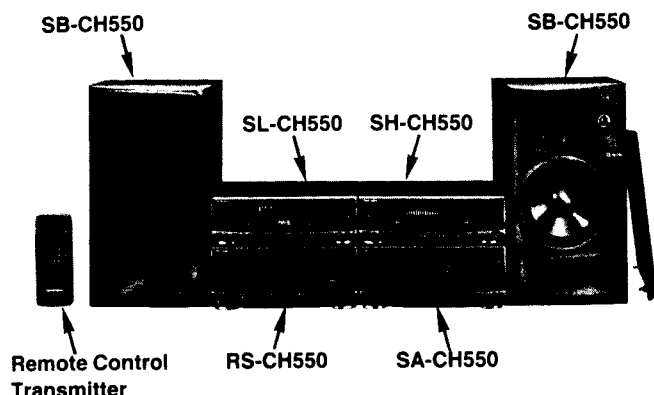


Cassette Deck

## RS-CH550

Colour

(K) ..... Black Type



### Areas

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH550

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

## ■ RS-TR165 MECHANISM SERIES (AR300)

### SPECIFICATIONS

Track system	Compact cassette stereo
Tape speed	4.8 cm/sec (1 $\frac{7}{8}$ ips)
Bias frequency	80 kHz
Heads	
DECK 1 (playback)	Permalloy head
DECK 2 (record/playback)	Permalloy head
(erasure)	Double gap ferrite head
Motors	DC servo motor
Wow and flutter	0.1% (WRMS)
Fast forward and rewind time	Approx. 110 seconds with C-60 cassette tape
Frequency response	
NORMAL	30 Hz–16 kHz
	40 Hz–15 kHz (DIN)
CrO <sub>2</sub>	30 Hz–16 kHz
	40 Hz–15 kHz (DIN)
METAL	30 Hz–17 kHz
	40 Hz–16 kHz (DIN)

### S/N (CrO<sub>2</sub> type tape)

Dolby NR off	56 dB (A-WTD)
Dolby B NR on	66 dB (CCIR)
Dolby C NR on	74 dB (CCIR)

### ■ GENERAL

Dimensions (W×H×D)	270×119×264 mm
Weight	2.8 kg

### Notes:

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

\*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
 "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

\*Europe area...Made in PAES.

# Technics

## ■ CONTENTS

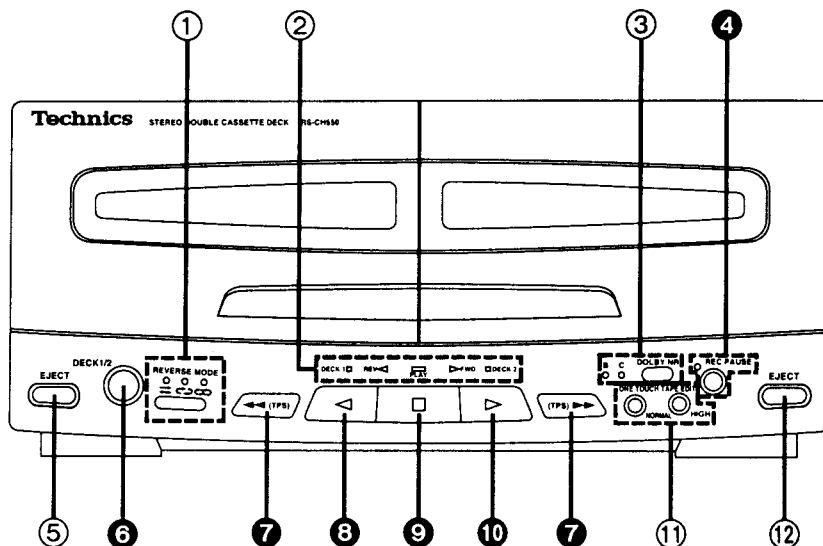
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### NOTE:

Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

## ■ LOCATION OF CONTROLS



### ① Reverse mode select button and indicators (REVERSE MODE)

Press to select the reverse mode (for playback and recording).

### ② Indicators section

Each indicator lights as follows.

DECK 1: Lights to show you can operate the deck 1.

REV/FWD: Lights to indicate the direction of the tape travel.

PLAY: Lights when you play or record the cassette tape.

Flashes when you quickly search for the beginning of a program while the tape is being played (TPS), or while in the recording standby mode.

DECK 2: Lights to show you can operate the deck 2.

### ③ Dolby noise reduction button and indicators (DOLBY NR, B, C)

Press to reduce hissing noise on the tape. This system has both the Dolby B-type and Dolby C-type noise reduction.

### ④ Record standby/record pause button and indicator (REC PAUSE)

Press to put deck 2 into the record standby mode.

### ⑤ Deck 1 cassette eject button (EJECT)

Press to open the deck 1 cassette holder.

### ⑥ Deck 1/deck 2 select button (DECK 1/2)

Press to select the deck to be operated.

### ⑦ Fast-forward/rewind/tape program sensor (TPS) buttons [◀◀ (TPS), (TPS) ▶▶]

Press to advance or rewind the tape, or to quickly search for the beginning of a program while the tape is being played.

### ⑧ Reverse-side playback button (◀)

Press to start the playback or recording (deck 2) in the reverse direction.

### ⑨ Stop button (□)

Press to stop the tape.

### ⑩ Forward-side playback button (▶)

Press to start the playback or recording (deck 2) in the forward direction.

### ⑪ One-touch tape edit buttons (NORMAL, HIGH)

Press to start the tape-to-tape recording.

### ⑫ Deck 2 cassette eject button (EJECT)

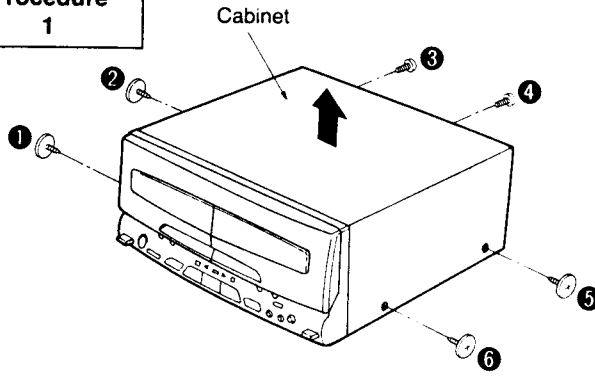
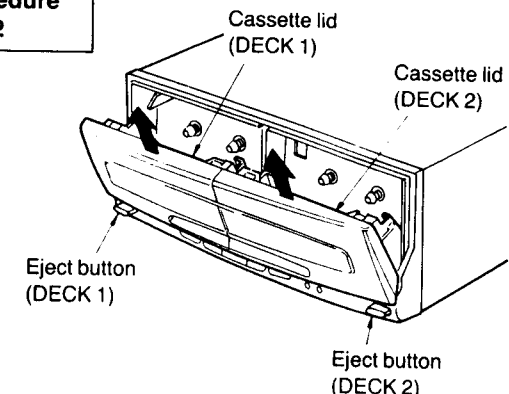
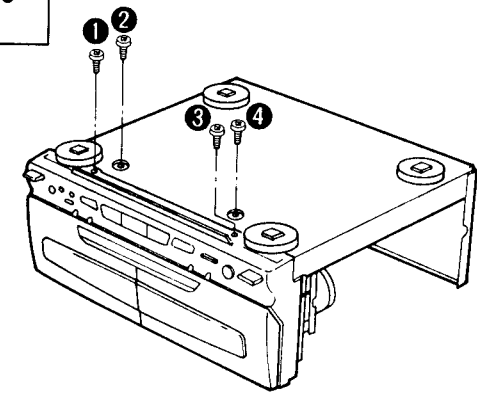
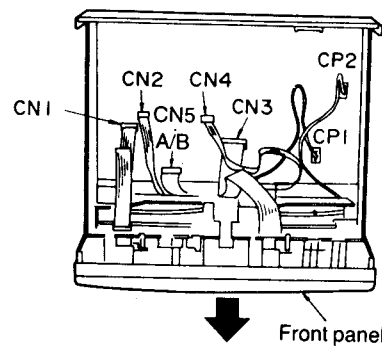
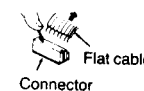
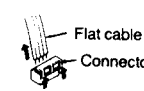
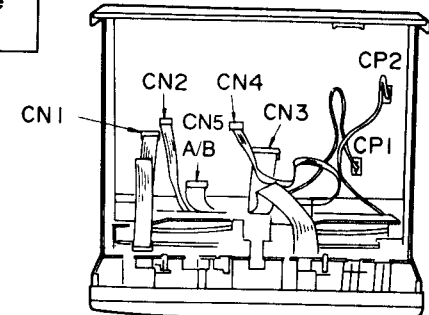
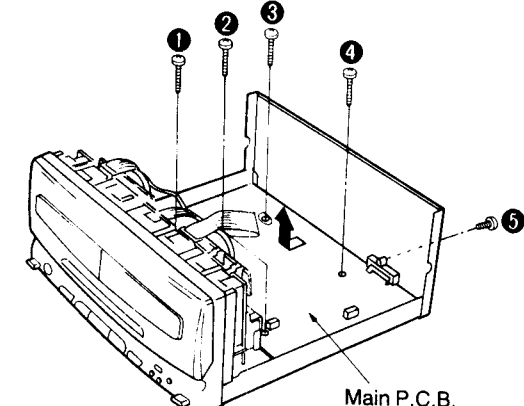
Press to open the deck 2 cassette holder.

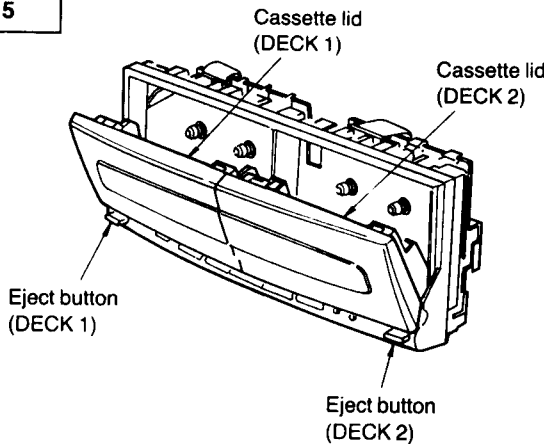
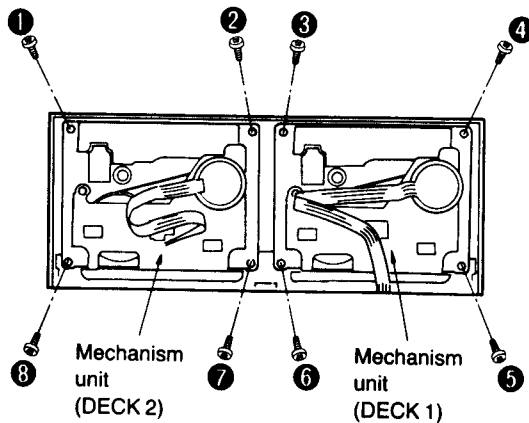
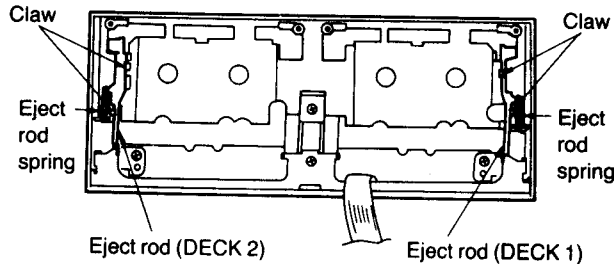
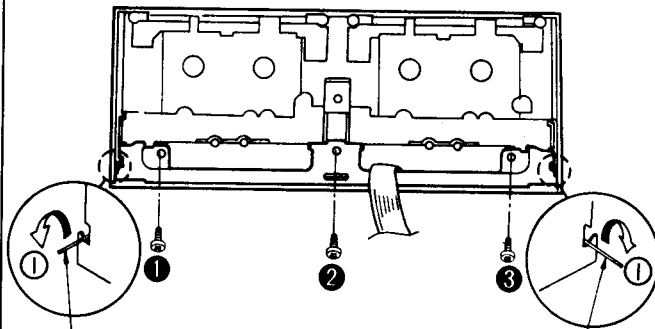
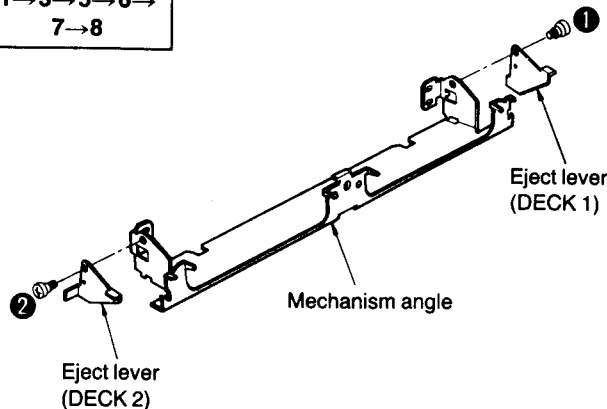
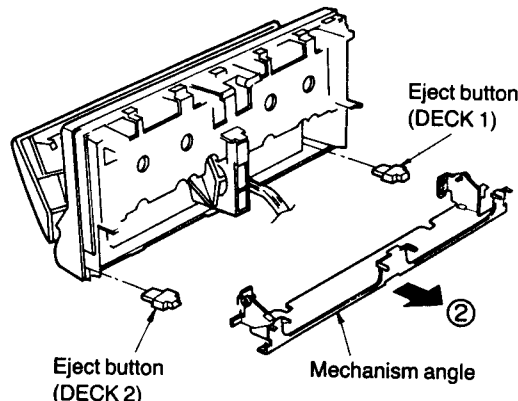
The functions indicated by the numbers with black background (for example ④) can also be activated from the remote control.

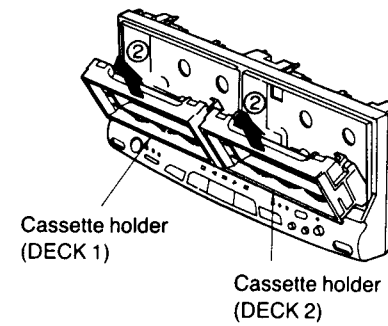
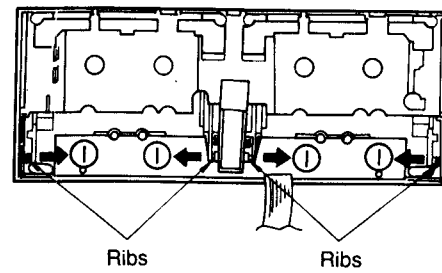
# DISASSEMBLY INSTRUCTIONS

## "ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

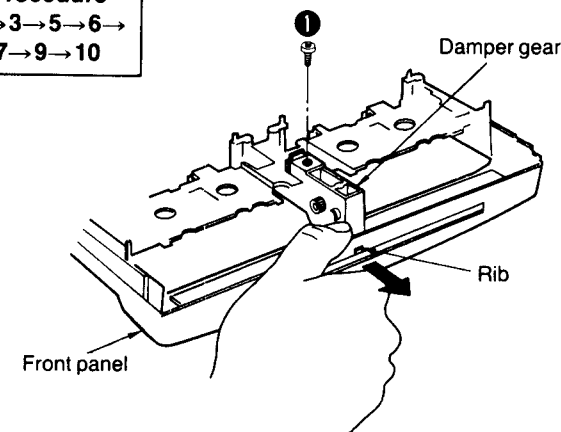
Ref. No. 1	Removal of the Cabinet	Ref. No. 2	Removal of the Cassette Lid (DECK 1 and DECK 2)
Procedure 1	 <ol style="list-style-type: none"> <li>Remove the 6 screws (1~6).</li> <li>Remove the cabinet in the direction of arrow.</li> </ol>	Procedure 2	 <ol style="list-style-type: none"> <li>Press the eject button and open the cassette lid.</li> <li>Remove the cassette lid in the direction of arrow.</li> </ol>
Ref. No. 3	Removal of the Front Panel		
Procedure 1→3	 <ol style="list-style-type: none"> <li>Remove the 4 screws (1~4).</li> </ol>	 <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>• Push the top of the connector and then pull out the flat cable. (CN1, CN3)</p>  <p>1. Lift up the connector. 2. Pull out the flat cable. (CN2, CN4, CN5 A/B)</p>  </div> <ol style="list-style-type: none"> <li>Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B).</li> <li>Remove the 2 connectors (CP1, CP2).</li> <li>Remove the front panel in the direction of arrow.</li> </ol>	
Ref. No. 4	Removal of the Main P.C.B.		
Procedure 1→4	 <ol style="list-style-type: none"> <li>Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B).</li> <li>Remove the 2 connectors (CP1, CP2).</li> </ol>	 <ol style="list-style-type: none"> <li>Remove the 5 screws (1~5).</li> <li>Remove the main P.C.B. in the direction of arrow.</li> </ol>	

Ref. No. 5	Removal of the Mechanism Unit (DECK 1 and DECK 2)		
Procedure 1→3→5	  <ol style="list-style-type: none"> <li>Press the eject button and open the cassette lid.</li> <li>Remove the 8 screws (①~⑧).</li> </ol>		
Ref. No. 6	Removal of the Eject Rod (DECK 1 and DECK 2)	Ref. No. 7	Removal of the Mechanism Angle
Procedure 1→3→5→6	  <ol style="list-style-type: none"> <li>Remove the eject rod spring.</li> <li>Release the 4 claws.</li> </ol> <ol style="list-style-type: none"> <li>Remove the cassette holder spring in the direction of arrow ① (DECK 1 and DECK 2).</li> <li>Remove the 3 screws (①~③).</li> </ol>		
Ref. No. 8	Removal of the Eject Lever (DECK 1 and DECK 2)		
Procedure 1→3→5→6→7→8	  <ol style="list-style-type: none"> <li>Remove the 2 screws (①, ②).</li> </ol> <ol style="list-style-type: none"> <li>Remove the mechanism angle in the direction of arrow ②.</li> <li>Remove the eject button (DECK 1 and DECK 2).</li> </ol>		

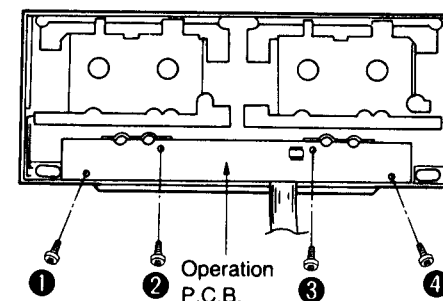
**Ref. No. 9**  
**Removal of the Cassette Holder (DECK 1 and Deck 2)**
**Procedure**  
 1→2→4→5→  
 6→7→9


1. Remove the ribs in the direction of arrow ①.

2. Remove the cassette holder in the direction of arrow ②.

**Ref. No. 10**  
**Removal of the Damper Gear**
**Procedure**  
 1→3→5→6→  
 7→9→10


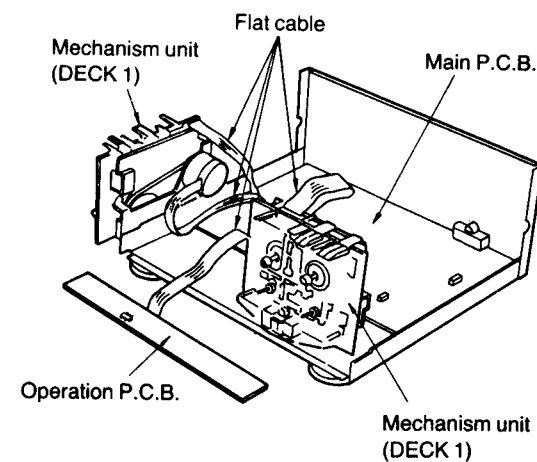
1. Remove the 1 screw (①).
2. Remove the damper gear's rib by holding the bottom and center of the front panel pressed slightly in the direction of the arrow.

**Ref. No. 11**  
**Removal of the Operation P.C.B.**
**Procedure**  
 1→3→5→6→  
 7→9→10→11


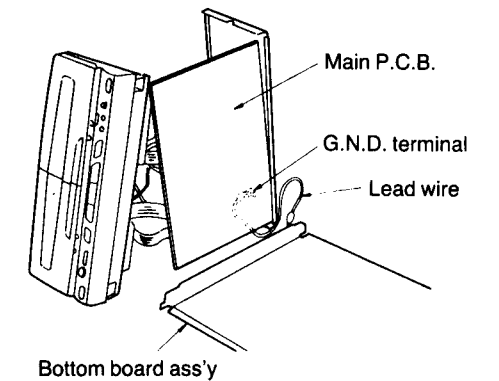
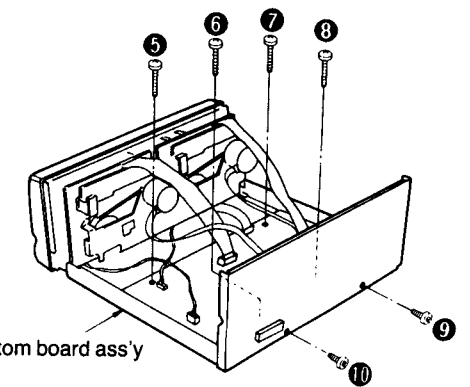
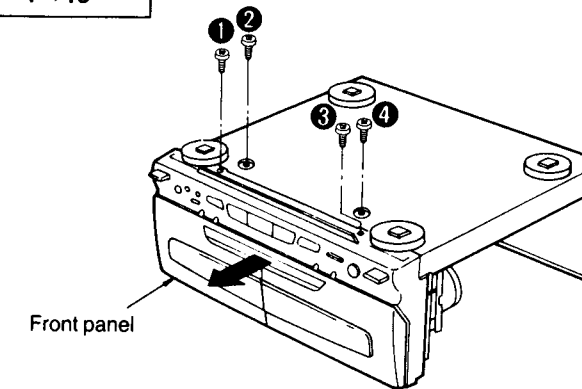
•Remove the 4 screws (①~④).

**Ref. No. 12**  
**How to check the Operation P.C.B.**
**Procedure**  
 1→3→5→6→  
 7→9→10→  
 11→12

•When checking the soldered surfaces of operation P.C.B. and replacing the parts, do as show.



1. Connect the flat cables and connectors of the mechanism units (DECK 1 and DECK 2) to the corresponding connectors (CN1, CN2, CN3, and CN4) on the main P.C.B. (Refer to page 15.)
2. Connect the flat cable on the operation P.C.B. to the connector (CN5 A/B) on the main P.C.B. (Refer to page 15.)

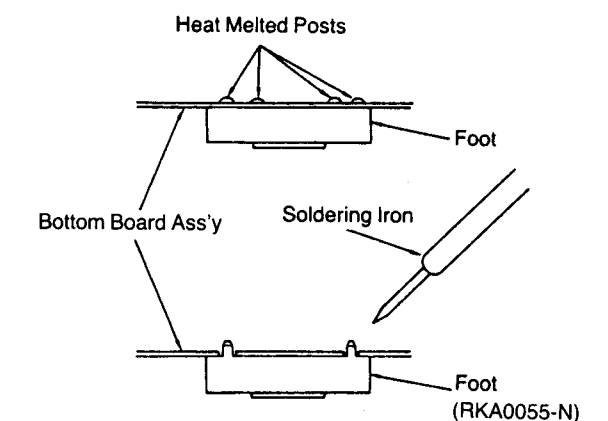
**Ref. No. 13**  
**How to check the Main P.C.B.**
**Procedure**  
 1→13


•When checking the soldered surfaces of mains P.C.B. and replacing the parts, do as show.

1. Remove the 4 screws (①~④).
2. Remove the front panel in the direction of arrow.
3. Remove the 6 screws (⑤~⑩).
4. Remove the bottom board ass'y.
5. Connect the GND terminal to the bottom board ass'y by the lead wire.

**•Replacement of the Foot.**

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the Bottom board ass'y, melt the 4 posts with a soldering iron.





# SCHEMATIC DIAGRAM • MAIN AND OPERATION CIRCUIT (Parts list on pages 21~24.)

## Notes:

- S900 : Stop switch (□)
- S901 : Fast-forward/TPS switch (TPS/▶▶)
- S902 : Fast-rewind/TPS switch (◀◀/TPS)
- S903 : Forward side playback switch (▶)
- S904 : Reverse side playback switch (◀)
- S905 : Record/record standby switch (REC PAUSE)
- S906 : Deck select switch (DECK 1/2)
- S907 : One touch tape edit switch (NORMAL)
- S908 : One touch tape edit switch (HIGH)
- S909 : Dolby noise reduction switch (DOLBY NR, B, C)
- S910 : Reverse mode select switch (REVERSE MODE)
- S951 : Mode detect switch (Deck 1)
- S952 : Half detect switch (Deck 1)
- S953 : CrO<sub>2</sub> tape detect switch (Deck 1)
- S971 : Mode detect switch (Deck 2)
- S972 : Half detect switch (Deck 2)
- S973 : Reverse side record prevention tab detect switch (Deck 2)
- S974 : Forward side record prevention tab detect switch (Deck 2)
- S975 : CrO<sub>2</sub> tape detect switch (Deck 2)
- S976 : METAL tape detect switch (Deck 2)

Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark...Playback ( )...Recording

## Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

This schematic diagram may be modified at any time with the development of new technology.

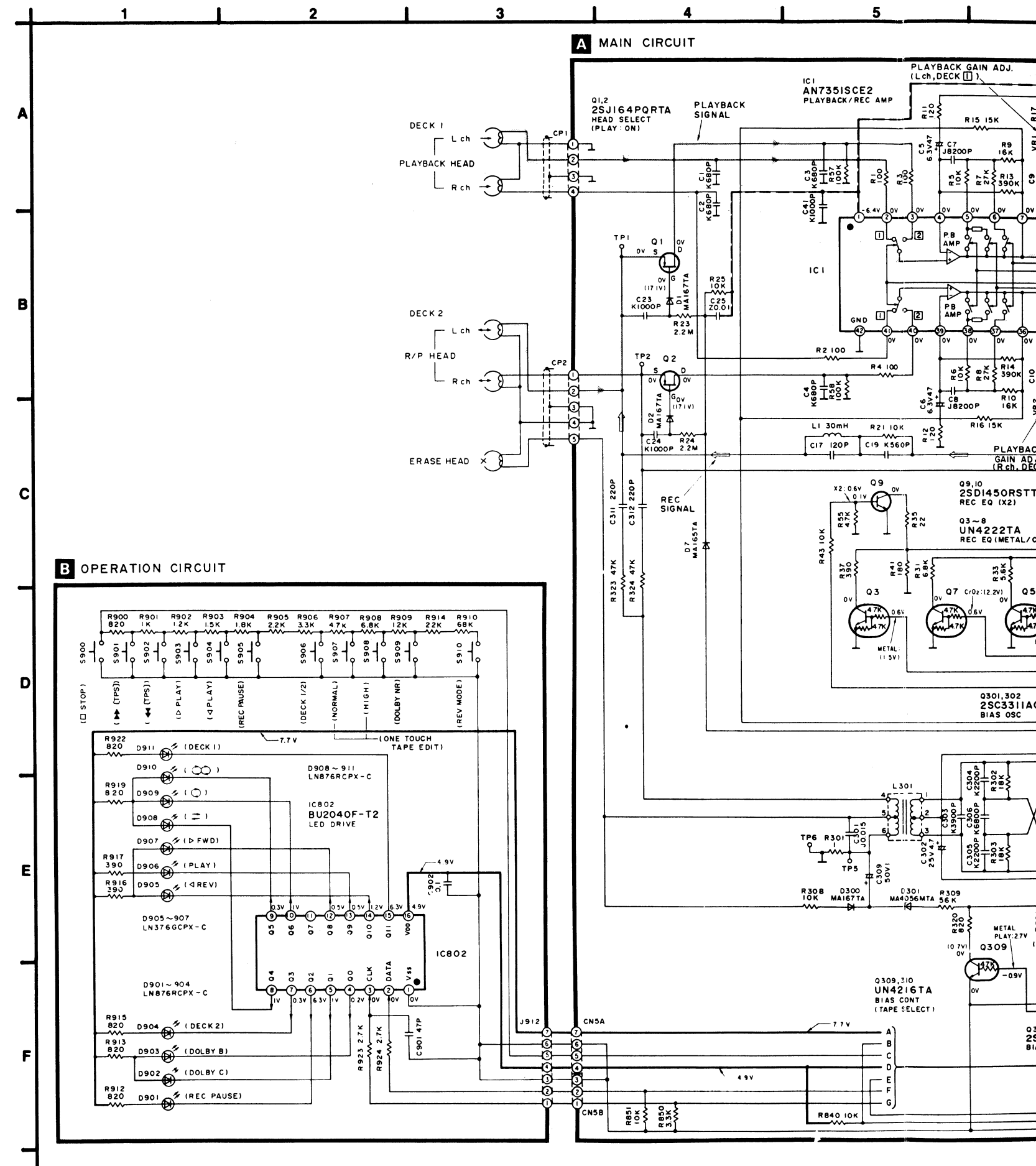
## Caution!

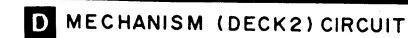
- IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC100 IC501	BA4558FT1	SVIBA4558F

- : Positive Voltage Line
- - - : Negative Voltage Line
- ⋯ : Playback Signal Line
- : Recording Signal Line





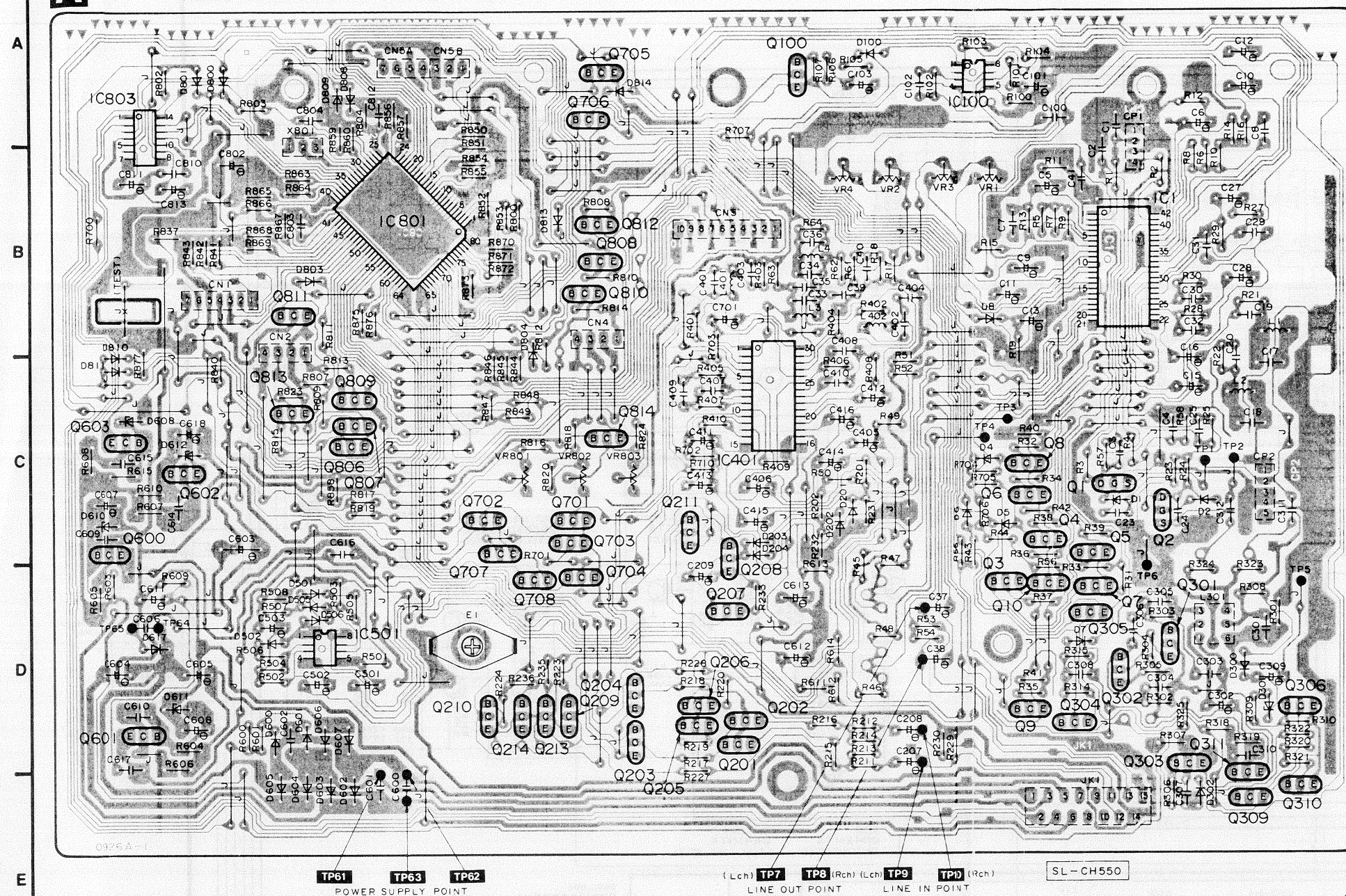




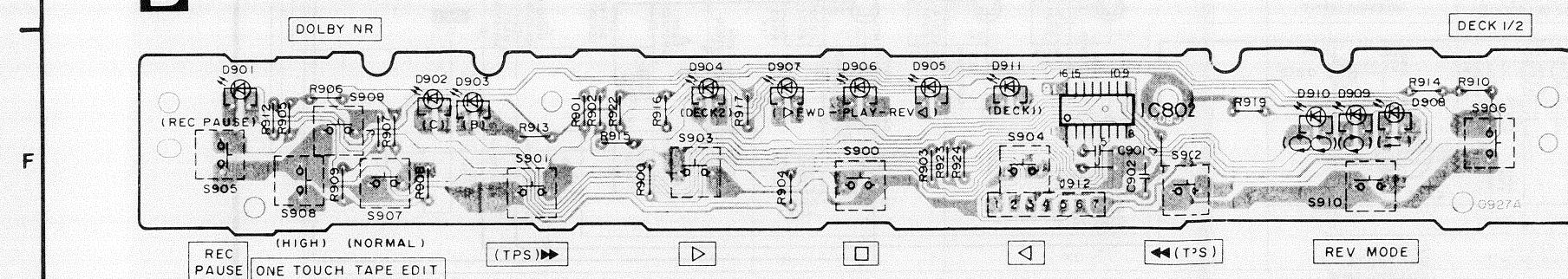
# PRINTED CIRCUIT BOARD DIAGRAM

1 2 3 4 5 6 7 8 9

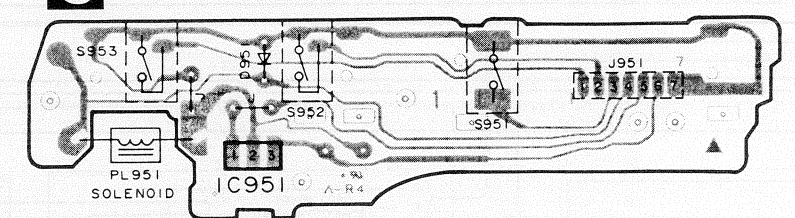
**A** MAIN P.C.B.(REPI440A-M)



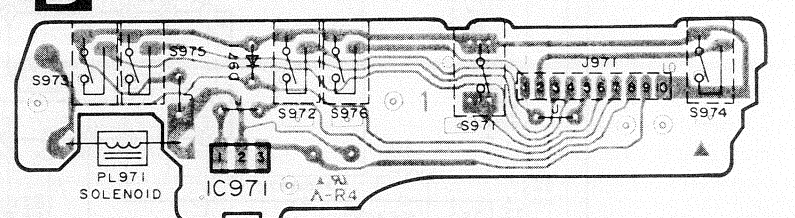
**B** OPERATION P.C.B.(REPI441A-S)



**C** MECHANISM (DECK 1) P.C.B. (REP0107)



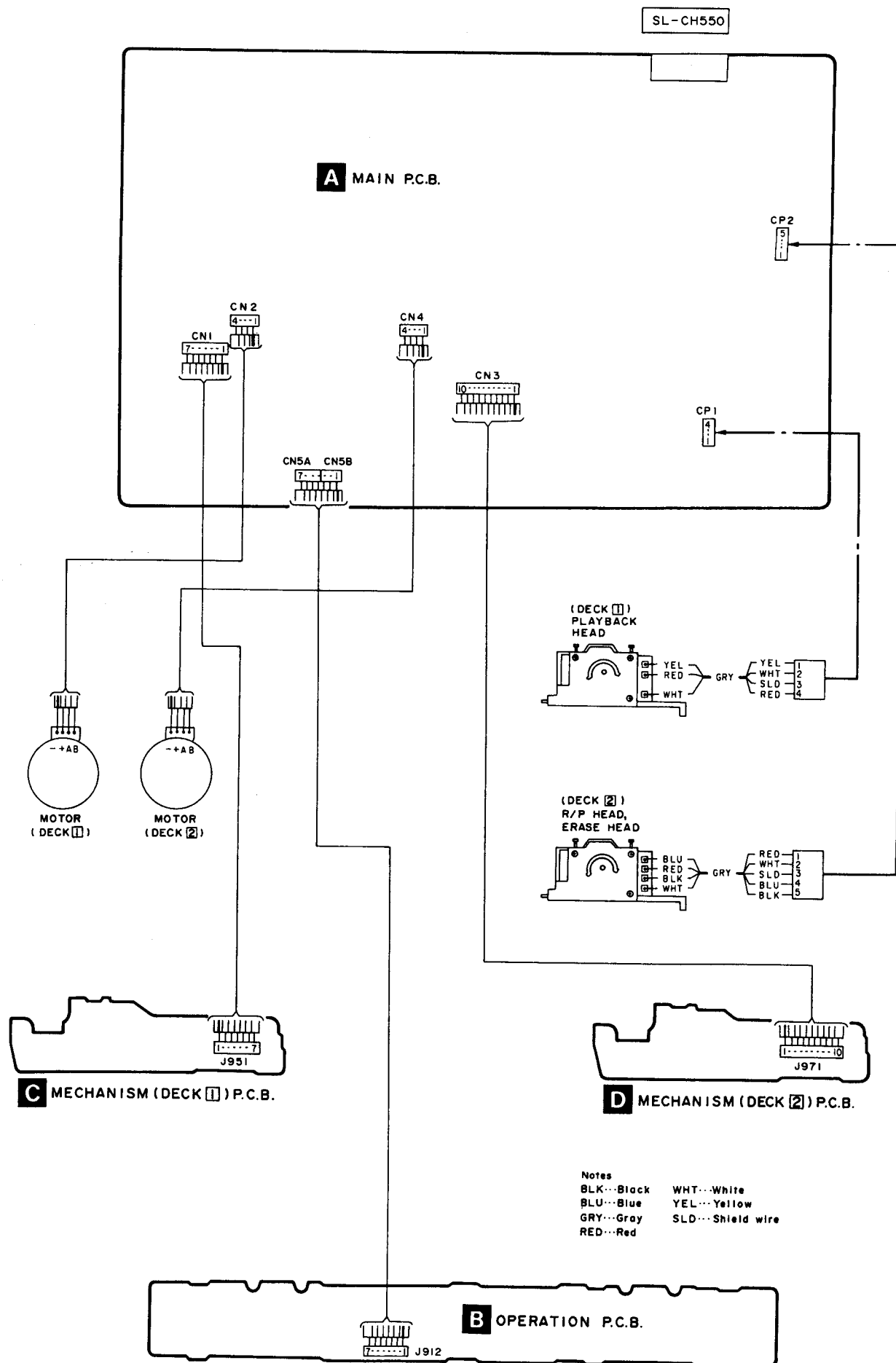
**D** MECHANISM (DECK 2) P.C.B. (REP0075)



BA4558FT1			LA5608M-TE-L 14Pin
			BU2040F-T2 16Pin
			CXA1331M-T6 30Pin
			AN7351SCE2 42Pin
M38062M3152F	DN6851ALB	2SB621AQRSTA 2SD1302STTA	
UN4216TA UN4222TA	2SA1309AQSTA 2SC3311AQSTA 2SC3312STTA 2SD1450RSTTA UN4111TA UN4113TA UN4211TA	2SJ164PQRTA	
2SB1357EFTA 2SD2037EFTA	2SD1862QRTV6		
1SS291TA	MA165TA MA167TA MA700TA 1SR35200TB RVD1SS133TA		
	MA4051HTA MA4056MTA MA4062MTA MA4082MTA	LN376GCPX-C LN876RCPX-C	



# WIRING CONNECTION DIAGRAM



## ■ MEASUREMENTS AND ADJUSTMENTS

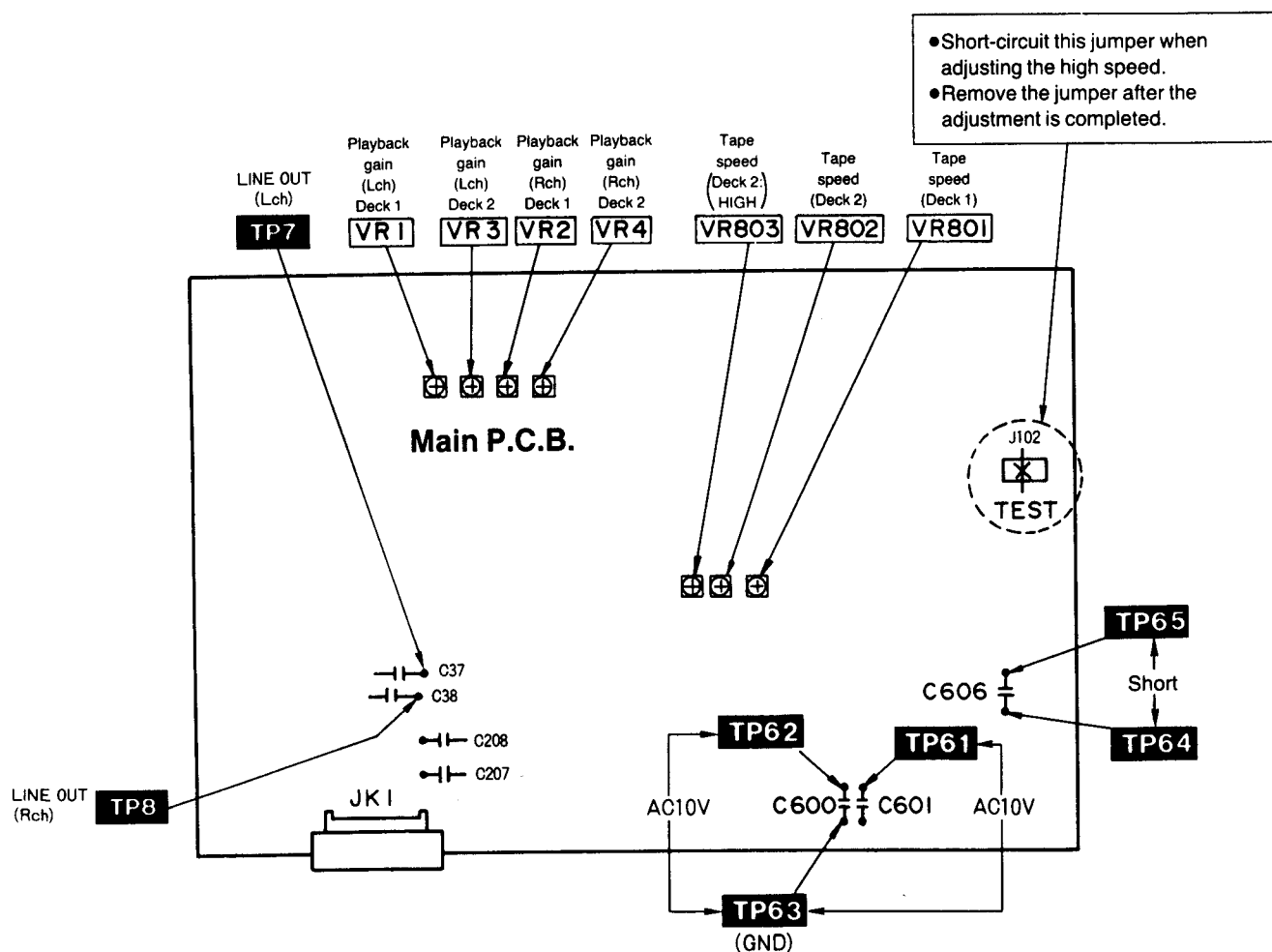
The RS-CH550 operates on power supplied from the SA-CH550 tuner amplifier.

To operate the RS-CH550 by connecting it to the tuner amplifier, short-circuit the test points shown below.

- Connect a jumper across TP64 and TP65.

The procedure below enables the RS-CH550 to be operated by itself without the SA-CH550 tuner amplifier during testing and repair.

1. Connect a jumper across TP64 and TP65.
  2. Apply 10 V AC across TP61 and TP63 and TP62.
- Remove the jumper after the operational check is completed.



### Measurement Condition

- Reverse-mode selector switch;
- One touch tape edit switch; NORMAL
- Dolby NR switch; OFF

### Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter

### Test tape

- Head azimuth adjustment (8 kHz, -20 dB); QZZCFM
- Tape speed adjustment (3 kHz, -10 dB); QZZCWAT
- Playback frequency response (315 Hz, 12.5 kHz, 10 kHz, 8 kHz, 4 kHz, 1 kHz, 250 Hz, 125 Hz, 63 Hz, -20 dB); QZZCFM

- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature  $20 \pm 5^\circ\text{C}$  ( $68 \pm 9^\circ\text{F}$ )

- Playback gain adjustment (315 Hz, 0 dB); QZZCFM

**HEAD AZIMUTH ADJUSTMENT (DECK 1/2)**

1. Playback the azimuth adjustment portion (8 kHz, -20 dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

**Note:** If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

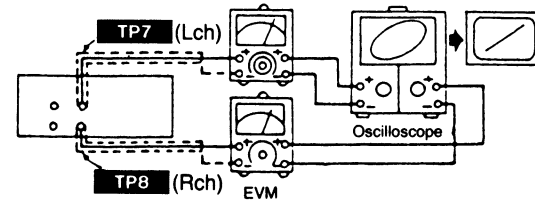


Fig. 1

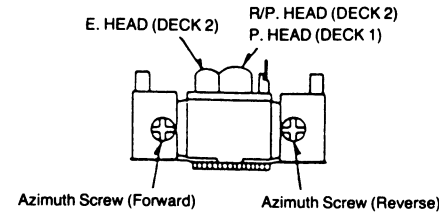


Fig. 2

**TAPE SPEED ADJUSTMENT (DECK 1/2)****Normal speed**

1. Press the one touch tape edit (NORMAL) button. This will set the normal speed mode.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1 = VR801 and Deck 2 = VR802 so that the output is within the standard value.

**Standard value: 3000±15 Hz (NORMAL speed)**

**High speed [Set the unit to forward (FWD) mode.]**

4. Short-circuit the jumper (J102). This will set the high speed mode.
5. Playback the middle portion on the test tape (QZZCWAT).
6. At that time, check if the output from DECK 1 is within the standard value.

**Standard value: 6000±630 Hz (HIGH speed)**

7. Adjust VR803 so that the output frequency of DECK 2 is within ±30 Hz of the value of the output frequency of DECK 1.

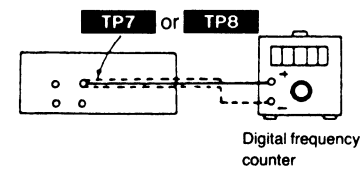


Fig. 3

**PLAYBACK GAIN ADJUSTMENT (DECK 1/2)**

1. Playback the gain adjusted portion (315 Hz, 0 dB) of the test tape (QZZCFM).
2. Adjust Deck 2 = VR3 (L-CH) [VR4 (R-CH)] and Deck 1 = VR1 (L-CH) [VR2 (R-CH)] so that the output is within the standard value.

**Standard value: 400 mV±0.5 dB**

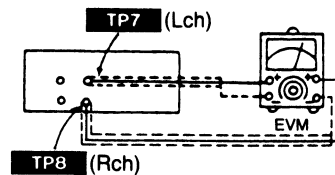


Fig. 4

**PLAYBACK FREQUENCY RESPONSE (DECK 1/2)**

1. Playback the frequency response portion (315 Hz, 12.5 kHz~63 Hz, -20 dB) of the test tape (QZZCFM).
2. Assume that the frequency response is within the range shown in Fig. 6 for both L-CH and R-CH.

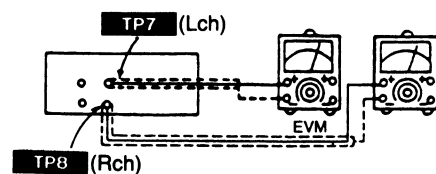


Fig. 5

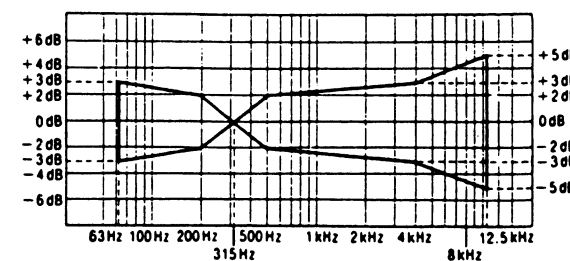


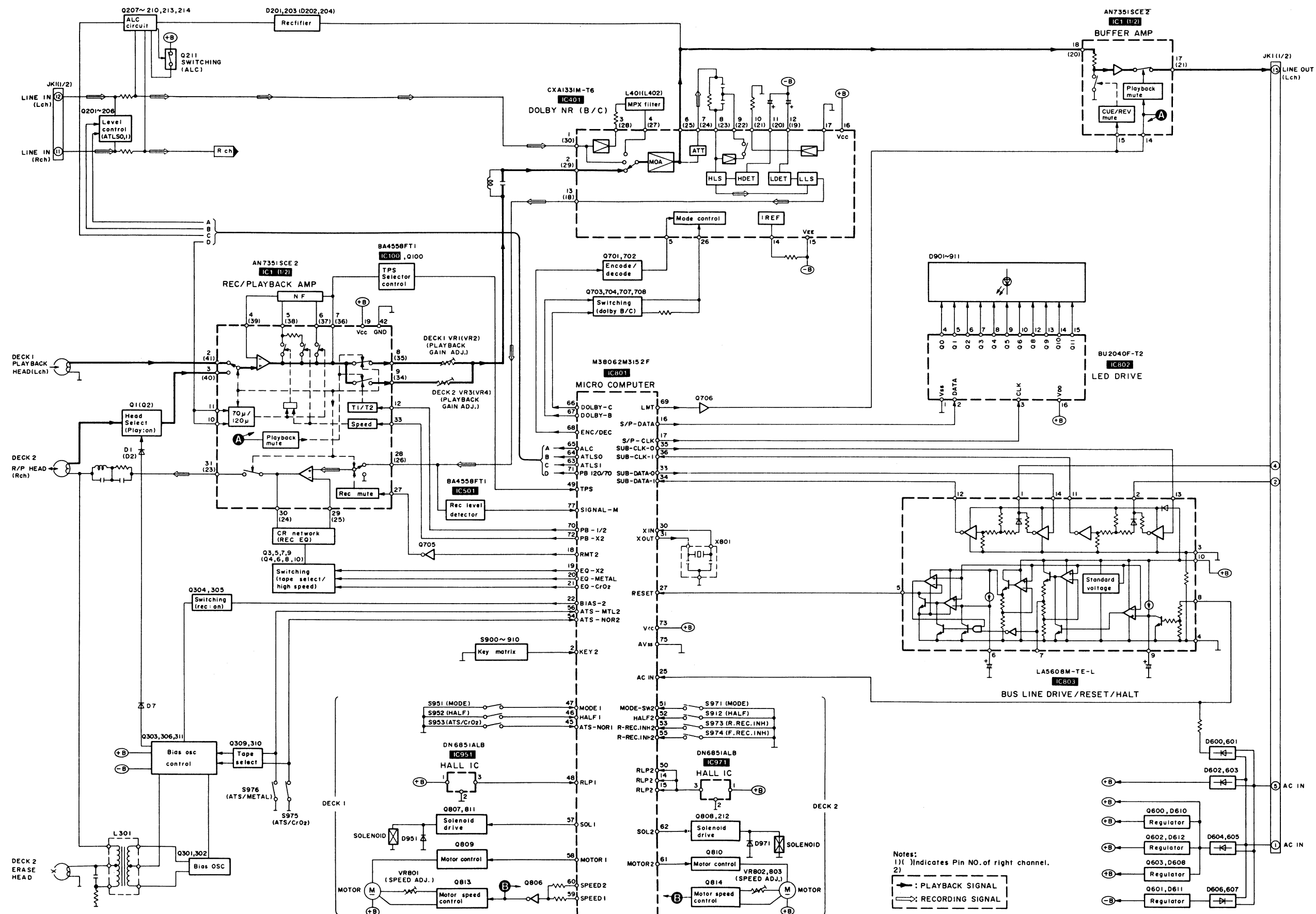
Fig. 6

**FUNCTION OF IC TERMINALS****•IC801 (M38062M3152F)**

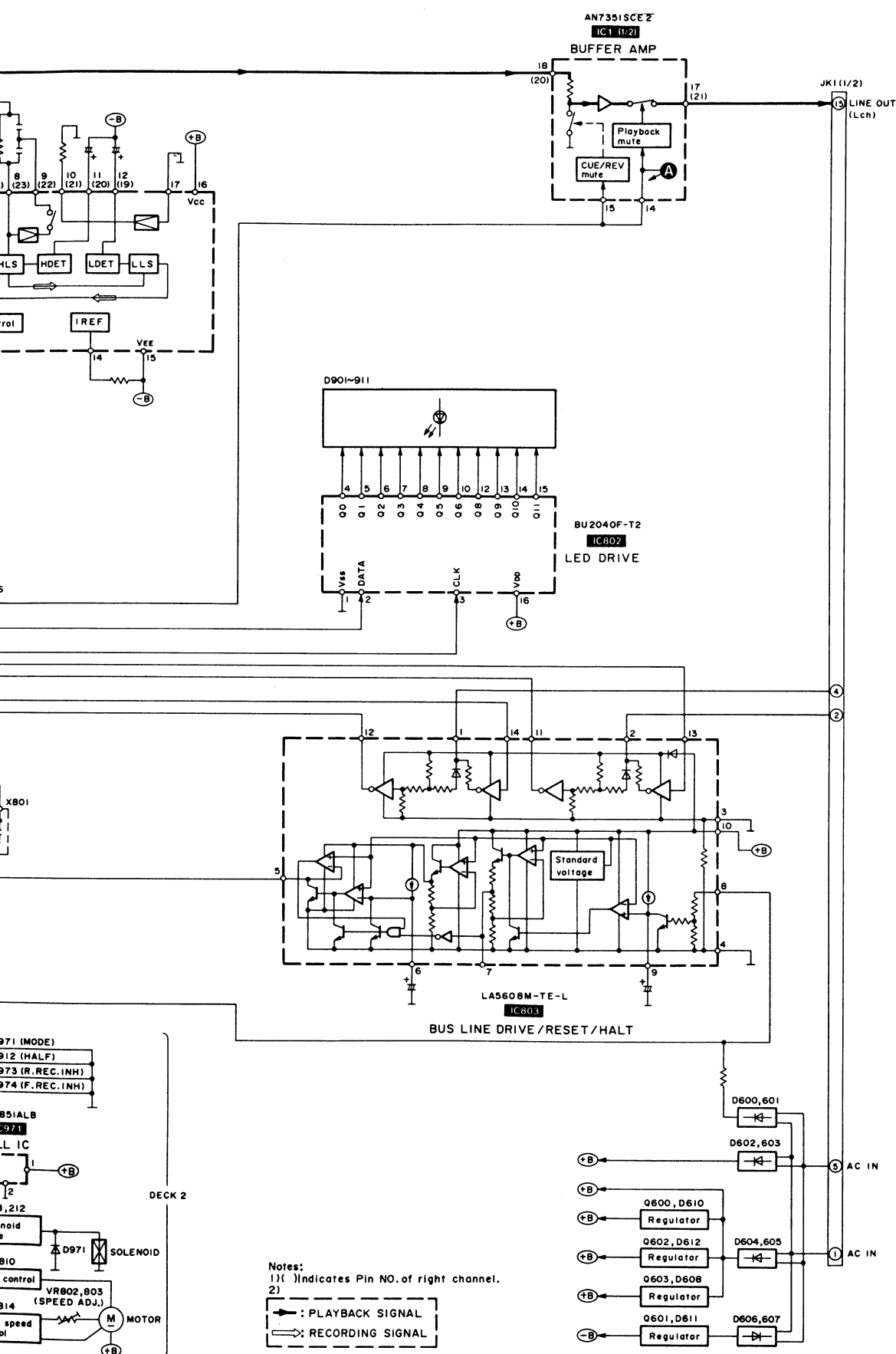
Pin No.	Terminal Name	I/O	Function
1	QUICK1	I	No use (pull down connection to Vss by resistance)
2	KEY2	I	Operation key and switch inputs of Decks 1 and 2
3	KEY1	I	Pull-up connection to Vss by resistance
4	—	—	For Vss connection
11	—	—	—
12	—	—	Pull-down connection to Vss by resistance
13	—	—	—
14	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
15	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
16	S/P-DATA	O	Serial signal output to LED IC
17	S/P-CLK	O	
18	RMT2	O	Recording muting signal output
19	EQ-×2	O	Switching signal output for equalizer of recording amplifier (×1/×2)
20	EQ-METAL	O	Switching signal output for equalizer of recording amplifier (METAL)
21	EQ-CrO <sub>2</sub>	O	Switching signal output for equalizer of recorder amplifier (CrO <sub>2</sub> )
22	BIAS2	O	ON/OFF signal output for recording bias
23	RMT1	O	No use (Pull-down connection to Vss by resistance)
24	BIAS1	O	No use (Pull-down connection to Vss by resistance)
25	AC IN	I	Power OFF detection signal input
26	CNVss	—	For Vss connection
27	RESET	I	Microprocessor reset signal output
28	—	—	Pull-down connection to Vss by resistance
29	—	—	
30	XIN	I	Microprocessor clock signal input
31	XOUT	O	Microprocessor clock signal output
32	Vss	—	Ground connection
33	BUS-DATA-O	O	Bus signal input and output
34	BUS-DATA-I	I	
35	BUS-CLK-O	O	
36	BUS-CLK-I	I	Pull-down connection to Vss by resistance
37	—	—	
39	—	—	
40	B/C SEL	O	Pull-down connection to Vss by resistance
41	TEST	I	For ON/OFF of TEST mode
42	ATS-MTL1	I	No use (pull-down connection to Vss by resistance)
43	F-RECINH1	I	No use (pull-down connection to Vss by resistance)
44	R-RECINH1	I	No use (pull-down connection to Vss by resistance)
45	ATS-NOR1	I	Tape position (NORMAL) detection SW input of Deck 1

Pin No.	Terminal Name	I/O	Function
46	HALF1	I	Tape-in/out detection SW input of Deck 1
47	MODE1	I	Mechanical mode SW input of Deck 1
48	RLP1	I	Detection pulse signal input of Deck 1 reel rotation
49	TPS	I	Song detection signal input during TPS operation
50	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
51	MODE2	I	Mechanical mode SW input of Deck 2
52	HALF2	I	Tape-in/out detection SW input of Deck 2
53	R-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "◀" direction)
54	ATS-NOR2	I	Tape position (NORMAL) detection SW input of Deck 2
55	F-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "▶" direction)
56	ATS-MTL2	I	Tape position (METAL) detection SW input of Deck 2
57	SOL1	O	Plunger ON/OFF signal output of Deck 1 mechanism
58	MOTOR1	O	Motor ON/OFF signal output of Deck 1 mechanism
59	SPEED1	O	Motor speed switching signal output of Deck 1 mechanism
60	SPEED2	O	Motor speed switching signal output of Deck 2 mechanism
61	MOTOR2	O	Motor ON/OFF signal output of Deck 2 mechanism
62	SOL2	O	Plunger ON/OFF signal output of Deck 2 mechanism
63	ATLS1	O	Setting of ATLS operation level
64	ATLS0	O	
65	ALC	O	ON/OFF signal output of ALC circuit
66	DOLBY-C	O	ON/OFF signal output of Dolby C
67	DOLBY-B	O	ON/OFF signal output of Dolby B
68	ENC/DEC	O	Encoder/decoder switching signal output of Dolby IC
69	LMT	O	Line out muting signal output
70	PB-1/2	O	Switching signal of player amplifier (Deck 1/2)
71	PB-120/70	O	Switching signal output for equalizer of player amplifier
72	PB-X2	O	Switching signal output for equalizer of player amplifier
73	Vcc	I	Power supply terminal for microprocessor
74	Vref	I	Reference power supply terminal for A/D input
75	AVss	—	Ground terminal for A/D input
76	—	—	Pull-down connection to Vss by resistance
77	SIGNAL-M	I	ATLS signal input
78	(SIGNAL-R)	I	No use (pull-down connection to Vss by resistance)
79	(SIGNAL-L)	I	No use (pull-down connection to Vss by resistance)
80	QUICK2	I	No use (pull-down connection to Vss by resistance)

## BLOCK DIAGRAM







## REPLACEMENT PARTS LIST

**Notes:** Important safety notice:  
Components identified by  $\Delta$  mark have special characteristics important for safety.  
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.  
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.  
The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)  
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)				DIODE (S)	
IC1	AN7351SCE2	I. C. PLAYBACK/REC AMP		D1, 2	MA167	DIODE	
IC100	SV1BA4558F	I. C. TPS SELECT CONT.		D4, 5	MA700TA	DIODE	
IC401	CXA1331M-T6	I. C. DOLBY NR		D6-8	MA165	DIODE	
IC501	SV1BA4558F	I. C. REC LEVEL DET.		D100	MA165	DIODE	
IC801	M38062M3152F	I. C. MICRO COMPUTER		D201-204	MA165	DIODE	
IC802	BU2040F-T2	I. C. LED DRIVE		D300	MA167	DIODE	
IC803	LA5608M-TE-L	I. C. BUS LINE DRIVE/RESET		D301	MA4056MTA	DIODE	
IC951	DN6851ALB	I. C. HALL		D302	MA165	DIODE	
IC971	DN6851ALB	I. C. HALL		D501, 502	MA165	DIODE	
		TRANSISTOR(S)		D505, 506	MA165	DIODE	
Q1, 2	2SJ164PQRTA	TRANSISTOR		D600, 601	MA165	DIODE	$\Delta$
Q3-8	UN4222	TRANSISTOR		D602-607	1SR35200TB	DIODE	$\Delta$
Q9	2SD1450RTA	TRANSISTOR		D608	MA4082MTA	DIODE	
Q10	2SD1450RTA	TRANSISTOR		D610, 611	MA4082MTA	DIODE	
Q100	2SC3311A-Q	TRANSISTOR		D612	MA4062MTA	DIODE	
Q201, 202	2SC3311A-Q	TRANSISTOR		D617	MA165	DIODE	
Q203, 204	UN4111	TRANSISTOR		D800, 801	1SS291TA	DIODE	
Q205, 206	2SC3311A-Q	TRANSISTOR		D803, 804	MA165	DIODE	
Q207	2SC3312STTA	TRANSISTOR		D808	MA165	DIODE	
Q208	UN4211	TRANSISTOR		D809	MA4051H	DIODE	
Q209, 210	2SC3312STTA	TRANSISTOR		D810	MA165	DIODE	
Q211	UN4113TA	TRANSISTOR		D811	1SS291TA	DIODE	
Q213, 214	2SC3312STTA	TRANSISTOR		D813, 814	MA165	DIODE	
Q301, 302	2SC3311A-Q	TRANSISTOR		D901-904	LN876RCPX-C	L. E. D.	
Q303	2SD1862QRTV6	TRANSISTOR		D905-907	LN376GCPX-C	L. E. D.	
Q304	2SB621A-R	TRANSISTOR		D908-911	LN876RCPX-C	L. E. D.	
Q305	UN4211	TRANSISTOR		D951	RVD1SS133TA	DIODE	
Q306	2SC3311A-Q	TRANSISTOR		D971	RVD1SS133TA	DIODE	
Q309, 310	UN4216-S	TRANSISTOR				VARIABLE RESISTOR(S)	
Q311	2SB621A-R	TRANSISTOR		VR1	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK1) (L)	
Q600	2SD1862QRTV6	TRANSISTOR		VR2	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK1) (R)	
Q601	2SB1357EFTA	TRANSISTOR		VR3	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK2) (L)	
Q602	2SD1862QRTV6	TRANSISTOR		VR4	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK2) (R)	
Q603	2SD2037EFTA	TRANSISTOR		VR801	EVNDXAA00B53	V. R. TAPE SPEED (DECK1)	
Q701	UN4111	TRANSISTOR		VR802	EVNDXAA00B53	V. R. TAPE SPEED (DECK2)	
Q702	UN4211	TRANSISTOR		VR803	EVNDXAA00B53	V. R. TAPE SPEED (DECK2)	
Q703, 704	UN4111	TRANSISTOR				COIL (S)	
Q705-708	UN4211	TRANSISTOR		L1, 2	SLQX303-1KT	COIL	
Q806-808	UN4222	TRANSISTOR		L3, 4	RLQB103JT-Y	COIL	
Q809, 810	2SD1302STTA	TRANSISTOR		L301	SL09B4-K	COIL	
Q811, 812	2SB621A-R	TRANSISTOR					
Q813, 814	2SA1309A-R	TRANSISTOR					

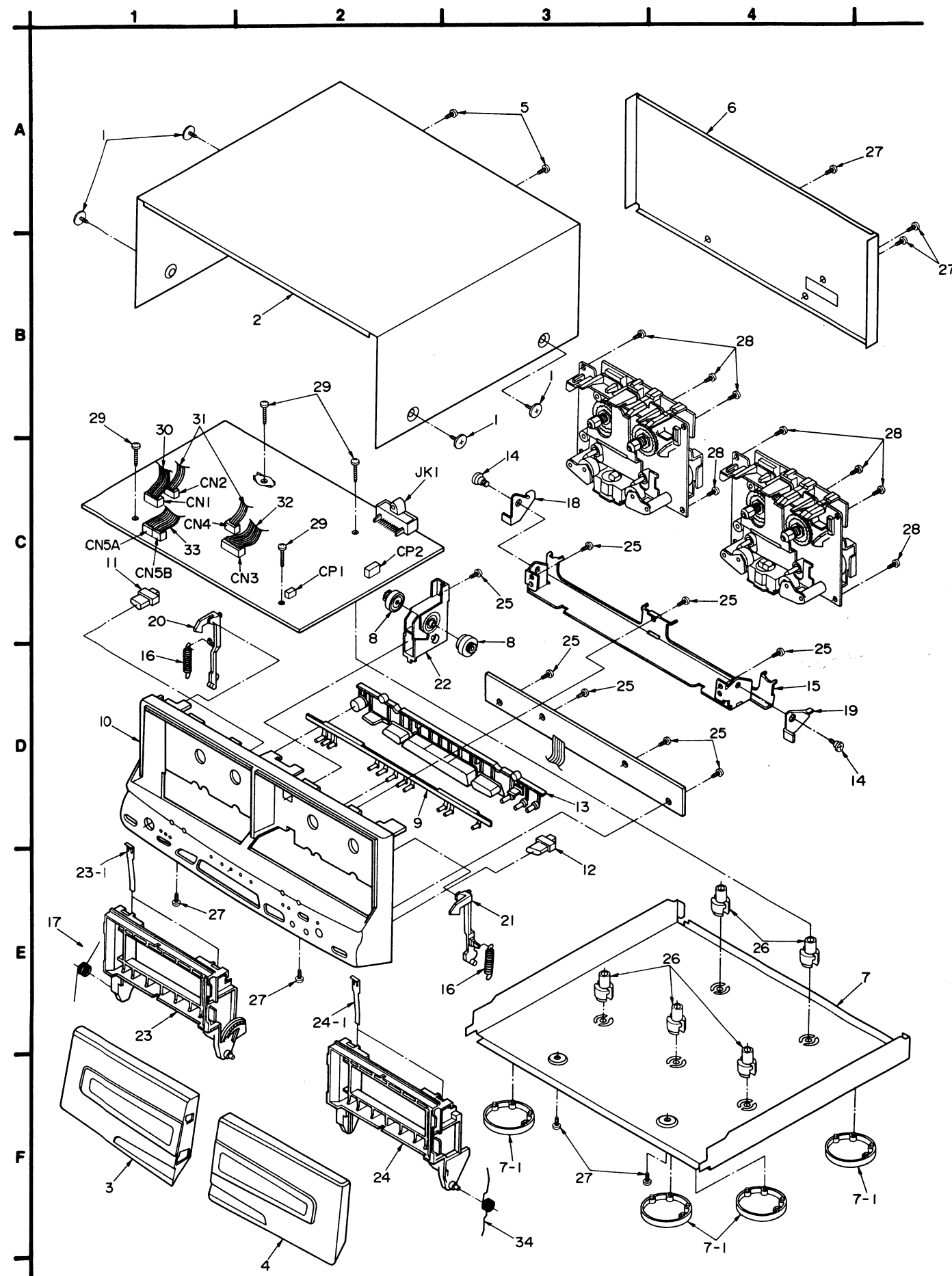
Ref.No.	Part No.	Part Name & Description	Remarks				
L401, 402	RLQB103JT-Y	COIL					
		OSCILLATOR					
X801	RSXY5M00M01T	OSCILLATOR					
		SWITCH(ES)					
S900	EVQ21405R	SW, STOP					
S901	EVQ21405R	SW, F. F. (TPS)					
S902	EVQ21405R	SW, REW (TPS)					
S903	EVQ21405R	SW, PLAY (FWD)					
S904	EVQ21405R	SW, PLAY (REV)					
S905	EVQ21405R	SW, REC PAUSE					
S906	EVQ21405R	SW, DECK1/2					
S907	EVQ21405R	SW, NORMAL					
S908	EVQ21405R	SW, HIGH					
S909	EVQ21405R	SW, DOLBY NR					
S910	EVQ21405R	SW, REV MODE					
S951	RSH1A89Z	SW, DECK1 MODE					
S952	RSH1A90YC-U	SW, DECK1 HALF					
S953	RSH1A90YC-U	SW, DECK1 ATS/Cr02					
S971	RSH1A89Z	SW, DECK2 MODE					
S972	RSH1A90YC-U	SW, DECK2 HALF					
S973	RSH1A90YC-U	SW, DECK2 R. REC INH					
S974	RSH1A90YC-U	SW, DECK2 F. REC INH					
S975	RSH1A90YC-U	SW, DECK2 ATS/Cr02					
S976	RSH1A90YC-U	SW, DECK2 ATS/METAL					
		CONNECTOR					
JK1	RJT065K15	CONNECTOR (15P)					
J912	REZ0511	FLAT CABLE (7P)					
J951	RJS7T7ZA	CONNECTOR (7P)					
J971	RJS10T7ZA	CONNECTOR (10P)					
CN1	RJS7T4ZA	CONNECTOR (7P)					
CN2	RJS1A6604	CONNECTOR (4P)					
CN3	SJSD1005	CONNECTOR (10P)					
CN4	RJS1A6604	CONNECTOR (4P)					
CN5A	RJS1A6604	CONNECTOR (4P)					
CN5B	RJS1A6603	CONNECTOR (3P)					
CF1	SJTD413	CONNECTOR (4P)					
CP2	RJP5G18ZA	CONNECTOR (5P)					
		EARTH TERMINAL					
E1	SNE1004-1	GND PLATE					

Notes : \* Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)  
\* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

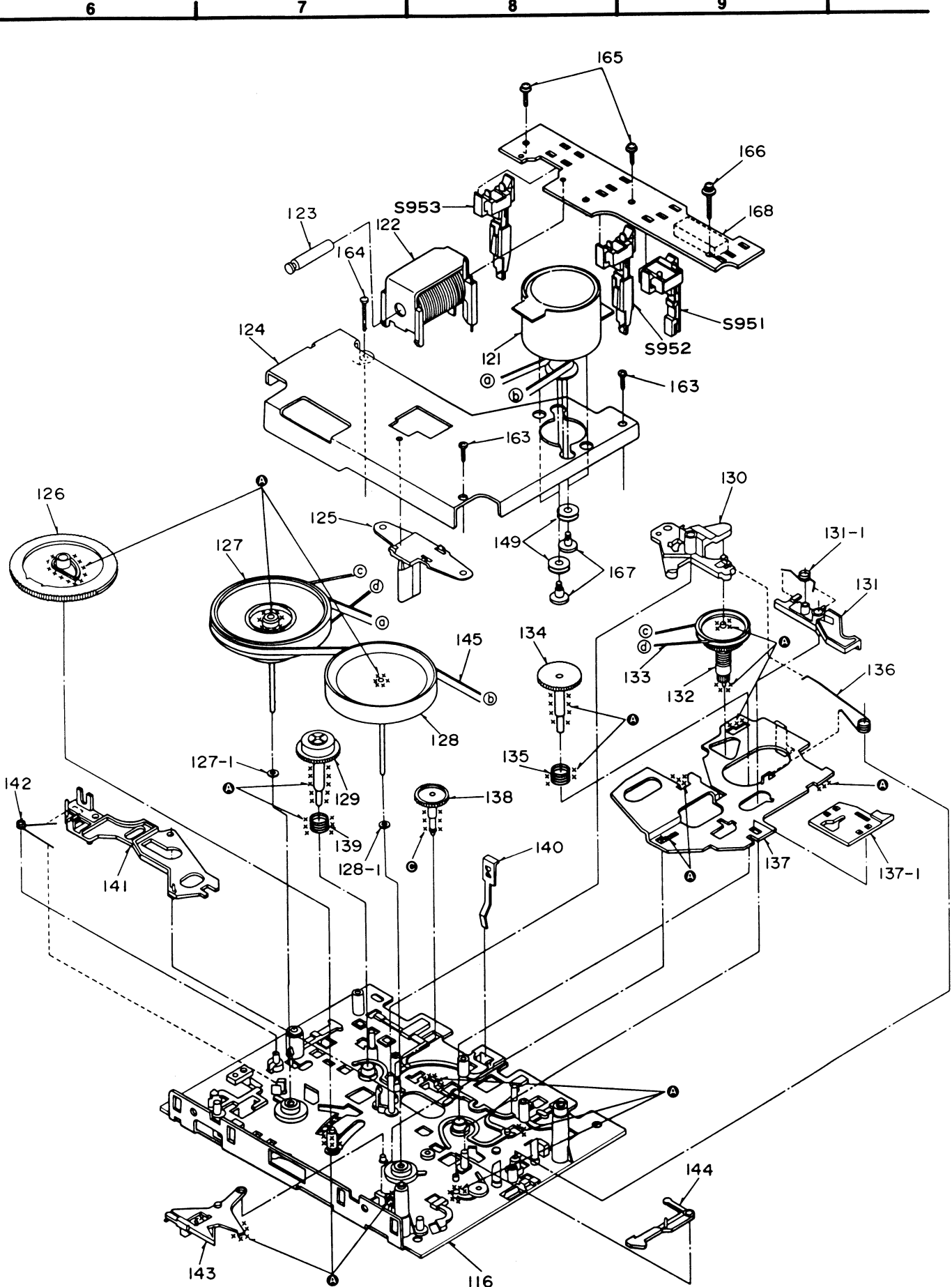
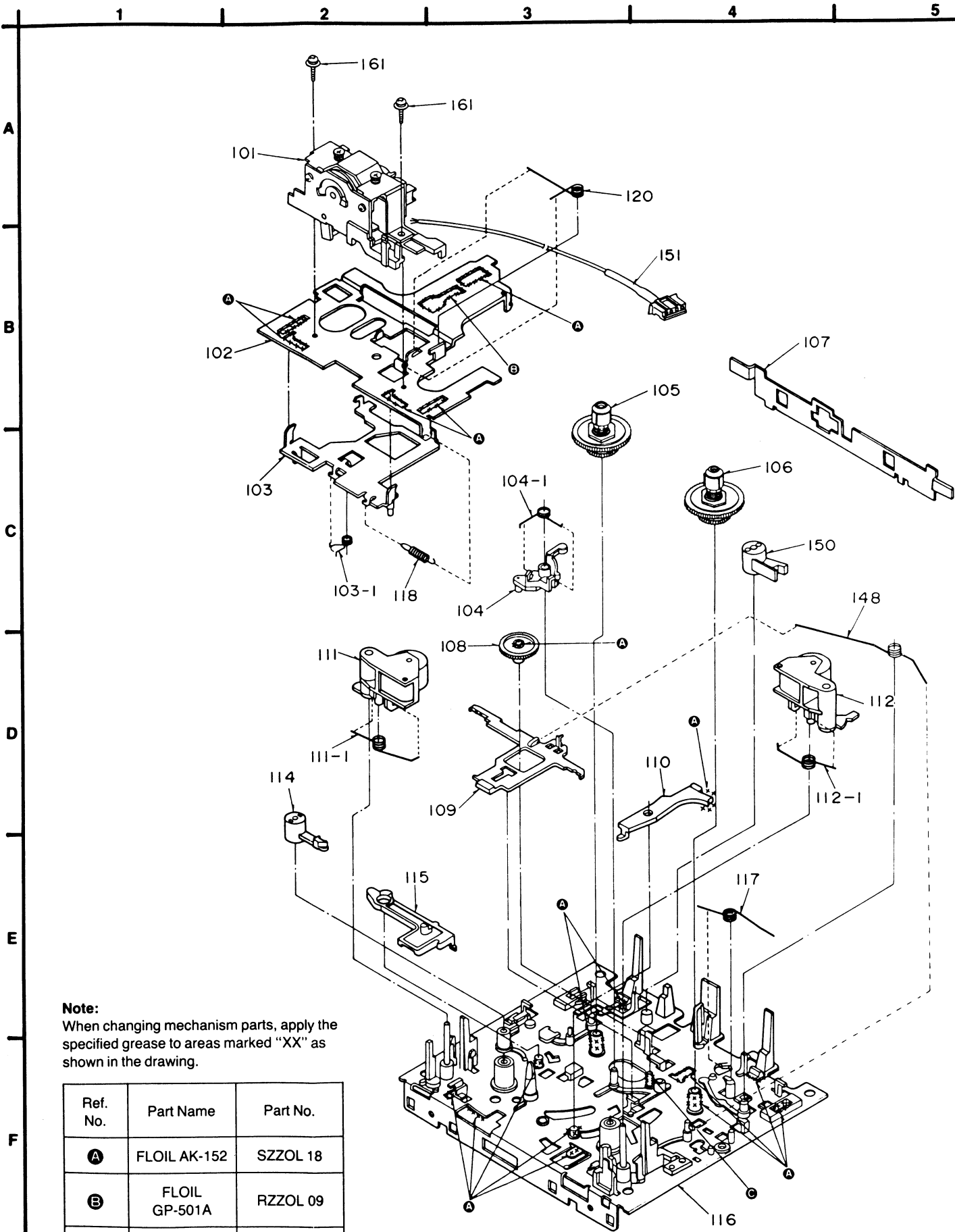
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R229, 230	ERDS2TJ394	1/4W 390K	R803	ERDS2TJ104	1/4W 100K
			R231, 232	ERDS2TJ562	1/4W 5.6K	R804	ERDS2TJ103	1/4W 10K
			R233	ERDS2TJ223	1/4W 22K	R807, 808	ERDS2TJ223	1/4W 22K
R1-4	ERDS2TJ101	1/4W 100	R235, 236	ERDS2TJ223	1/4W 22K	R809-812	ERDS2TJ821	1/4W 820
R5, 6	ERDS2TJ103	1/4W 10K	R301	ERDS2TJ1R0	1/4W 1.0	R813, 814	ERDS2TJ2R7T	1/4W 2.7
R7, 8	ERDS2TJ273	1/4W 27K	R302, 303	ERDS2TJ183T	1/4W 18K	R815, 816	ERDS2TJ184T	1/4W 180K
R9	ERDS2TJ163T	1/4W 16K	R304, 305	ERDS2TJ100	1/4W 10	R817, 818	ERDS2TJ392T	1/4W 3.9K
R10	ERDS2TJ163T	1/4W 16K	R306	ERDS2TJ561	1/4W 560	R819, 820	ERDS2TJ103	1/4W 10K
R11, 12	ERDS2EJ121	1/4W 120	R307	ERD2FCVG150T	1/4W 15 Δ	R823	ERDS2TJ153	1/4W 15K
R13, 14	ERDS2TJ394	1/4W 390K	R308	ERDS2TJ103	1/4W 10K	R824	ERDS2TJ123	1/4W 12K
R15, 16	ERDS2TJ153	1/4W 15K	R309	ERDS2TJ563	1/4W 56K	R837	ERDS2TJ103	1/4W 10K
R17, 18	ERDS2TJ272T	1/4W 2.7K	R310	ERDS2TJ562	1/4W 5.6K	R840	ERDS2TJ103	1/4W 10K
R19	ERDS2TJ392T	1/4W 3.9K	R314	ERDS2TJ473	1/4W 47K	R841-843	ERDS2TJ472	1/4W 4.7K
R21, 22	ERDS2TJ103	1/4W 10K	R315	ERDS2TJ272T	1/4W 2.7K	R844	ERDS2TJ102	1/4W 1K
R23, 24	ERDS2TJ225	1/4W 2.2M	R318	ERDS2TJ561	1/4W 560	R845	ERDS2TJ472	1/4W 4.7K
R25	ERDS2TJ103	1/4W 10K	R319	ERDS2TJ331	1/4W 330	R846	ERDS2TJ102	1/4W 1K
R27, 28	ERDS2TJ123	1/4W 12K	R320	ERDS2TJ821	1/4W 820	R847-849	ERDS2TJ472	1/4W 4.7K
R29, 30	ERDS2TJ563	1/4W 56K	R321	ERDS2TJ822	1/4W 8.2K	R850	ERDS2TJ332	1/4W 3.3K
R31, 32	ERDS2TJ682T	1/4W 6.8K	R322	ERDS2TJ680T	1/4W 68	R851-860	ERDS2TJ103	1/4W 10K
R33, 34	ERDS2TJ562	1/4W 5.6K	R323, 324	ERDS2TJ473	1/4W 47K	R863-873	ERDS2TJ103	1/4W 10K
R35, 36	ERDS2TJ220T	1/4W 22	R325	ERDS2TJ103	1/4W 10K	R875-877	ERDS2TJ102	1/4W 1K
R37, 38	ERDS2TJ391	1/4W 390	R401, 402	ERDS2TJ272T	1/4W 2.7K	R900	ERDS2TJ821	1/4W 820
R39, 40	ERDS2TJ222	1/4W 2.2K	R403, 404	ERDS2TJ562	1/4W 5.6K	R901	ERDS2TJ102	1/4W 1K
R41, 42	ERDS2TJ181T	1/4W 180	R405, 406	ERDS2TJ243T	1/4W 24K	R902	ERDS2TJ122	1/4W 1.2K
R43, 44	ERDS2TJ103	1/4W 10K	R407, 408	ERDS2TJ561	1/4W 560	R903	ERDS2TJ152	1/4W 1.5K
R45, 46	ERDS2TJ682T	1/4W 6.8K	R409	ERDS2TJ151	1/4W 150	R904	ERDS2TJ182	1/4W 1.8K
R47, 48	ERDS2TJ272T	1/4W 2.7K	R410	ERDS2TJ273	1/4W 27K	R905	ERDS2TJ222	1/4W 2.2K
R49-52	ERDS2TJ682T	1/4W 6.8K	R501, 502	ERDS2TJ393	1/4W 39K	R906	ERDS2TJ332	1/4W 3.3K
R53, 54	ERDS2TJ104	1/4W 100K	R503, 504	ERDS2TJ153	1/4W 15K	R907	ERDS2TJ472	1/4W 4.7K
R55, 56	ERDS2TJ472	1/4W 4.7K	R505, 506	ERDS2TJ124T	1/4W 120K	R908	ERDS2TJ682T	1/4W 6.8K
R57, 58	ERDS2TJ104	1/4W 100K	R507	ERDS2TJ220T	1/4W 22	R909	ERDS2TJ123	1/4W 12K
R61, 62	ERDS2TJ102	1/4W 1K	R508	ERDS2TJ822	1/4W 8.2K	R910	ERDS2TJ683	1/4W 68K
R63, 64	ERDS2TJ562	1/4W 5.6K	R600, 601	ERDS2TJ472	1/4W 4.7K	R912, 913	ERDS2TJ821	1/4W 820
R100	ERDS2TJ332	1/4W 3.3K	R603, 604	ERDS2TJ102	1/4W 1K	R914	ERDS2TJ223	1/4W 22K
R101	ERDS2TJ331	1/4W 330	R605, 606	ERD2FCVJ4R7T	1/4W 4.7 Δ	R915	ERDS2TJ821	1/4W 820
R102	ERDS2TJ823T	1/4W 82K	R607	ERD2FCVG150T	1/4W 15 Δ	R916, 917	ERDS2TJ391	1/4W 390
R103	ERDS2TJ393	1/4W 39K	R608	ERD2FCVJ4R7T	1/4W 4.7 Δ	R919	ERDS2TJ821	1/4W 820
R104	ERDS2TJ682T	1/4W 6.8K	R609	ERDS2TJ100	1/4W 10	R922	ERDS2TJ821	1/4W 820
R105	ERDS2TJ102	1/4W 1K	R610	ERDS2TJ222	1/4W 2.2K	R923, 924	ERDS2TJ272T	1/4W 2.7K
R106	ERDS2TJ473	1/4W 47K	R611-614	ERDS2TJ270T	1/4W 27			CAPACITORS
R107	ERDS2TJ123	1/4W 12K	R615	ERDS2TJ102	1/4W 1K			
R201, 202	ERDS2TJ152	1/4W 1.5K	R700	ERDS2TJ100	1/4W 10			
R211, 212	ERDS2TJ273	1/4W 27K	R701	ERDS2TJ822	1/4W 8.2K	C1-4	ECBA1H681KB5	50V 680P
R213, 214	ERDS2TJ332	1/4W 3.3K	R702, 703	ERDS2TJ103	1/4W 10K	C5, 6	ECEA0JKA470B	6.3V 47U
R215, 216	ERDS2TJ392T	1/4W 3.9K	R704-706	ERDS2TJ472	1/4W 4.7K	C7, 8	ECQB1H822JF3	50V 8200P
R217, 218	ERDS2TJ103	1/4W 10K	R707	ERDS2TJ152	1/4W 1.5K	C9	ECEA1EKA4R7B	25V 4.7U
R219, 220	ERDS2TJ822	1/4W 8.2K	R710	ERDS2TJ103	1/4W 10K	C10-12	ECEA1EKA4R7B	25V 4.7U
R223, 224	ERDS2TJ223	1/4W 22K	R800	ERDS2TJ103	1/4W 10K	C13	ECEA0JKA470B	6.3V 47U
R227, 228	ERDS2TJ273	1/4W 27K	R802	ERDS2TJ470	1/4W 47	C15, 16	ECEA1EKA4R7B	25V 4.7U

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C17, 18	ECKR2H121KB5	500V 120P	C811	ECEA1HKAR33B	50V 0.33U			
C19, 20	ECBT1H561KB5	50V 560P	C812	ECBT1E103ZF	25V 0.01U			
C23, 24	ECBT1H102KB5	50V 1000P	C813	ECEA1HKAR22B	50V 0.22U			
C25	ECBT1E103ZF	25V 0.01U	C901	ECBT1H470J5	50V 47P			
C27, 28	ECEA1HKAR22B	50V 0.22U	C902	ECBT1H104ZF5	50V 0.1U			
C29, 30	ECQB1H472JF3	50V 4700P						
C31, 32	ECQB1H123JF3	50V 0.012U						
C33, 34	ECBT1H391KB5	50V 390P						
C35, 36	ECBT1H102KB5	50V 1000P						
C37, 38	ECEA1CKA100B	16V 10U						
C39, 40	ECBT1C392KR5	16V 3900P						
C41	ECBT1H102KB5	50V 1000P						
C100	ECQB1H103JF3	50V 0.01U						
C101	ECEA1HKA3R3B	50V 3.3U						
C102	ECBT1H470J5	50V 47P						
C103	ECEA1HKA2R2B	50V 2.2U						
C207, 208	ECEA1HKA010B	50V 1U						
C209	ECEA1EKA4R7B	25V 4.7U						
C301	ECQP1153JZ	100V 0.015U						
C302	ECEA1EKA4R7B	25V 4.7U						
C303	ECKR1H392KB5	50V 3900P						
C304, 305	ECKW1H222KB5	50V 2200P						
C306	ECKD1H682KB	50V 6800P						
C307	ECBT1E103ZF	25V 0.01U						
C308	ECKR1H472KB5	50V 4700P						
C309	ECEA1HKA010B	50V 1U						
C310	ECBT1E103ZF	25V 0.01U						
C311, 312	ECBT1H221KB5	50V 220P						
C401, 402	ECBT1H391KB5	50V 390P						
C403, 404	ECBT1C332KR5	16V 3300P						
C405, 406	ECEA1EKA4R7B	25V 4.7U						
C407-410	ECQB1H222JF3	50V 2200P						
C411, 412	ECEA1HUR56B	50V 0.56U						
C413, 414	ECEA1HKAR33B	50V 0.33U						
C415, 416	ECEA1CKA100B	16V 10U						
C501-503	ECEA1CKA100B	16V 10U						
C600, 601	ECKR1H103ZF5	50V 0.01U Δ						
C602	ECKR2H682PE	500V 6800P Δ						
C603	ECEA1EU222B	25V 2200U						
C604, 605	ECA1EM102B	25V 1000U						
C606	ECKR1H103ZF5	50V 0.01U						
C607, 608	ECEA1AKA101B	10V 100U						
C609, 610	ECBT1E103ZF	25V 0.01U						
C611	ECEA1HKA010B	50V 1U						
C612, 613	ECA1AM471B	10V 470U						
C614, 615	ECBT1E103ZF	25V 0.01U						
C616, 617	ECKR1H103ZF5	50V 0.01U						
C618	ECEA1CKA100B	16V 10U						
C701	ECEA1CKA100B	16V 10U						
C802	ECA0JM102B	6.3V 1000U						
C803, 804	ECBT1E103ZF	25V 0.01U						
C810	ECBT1E223ZF	25V 0.022U						

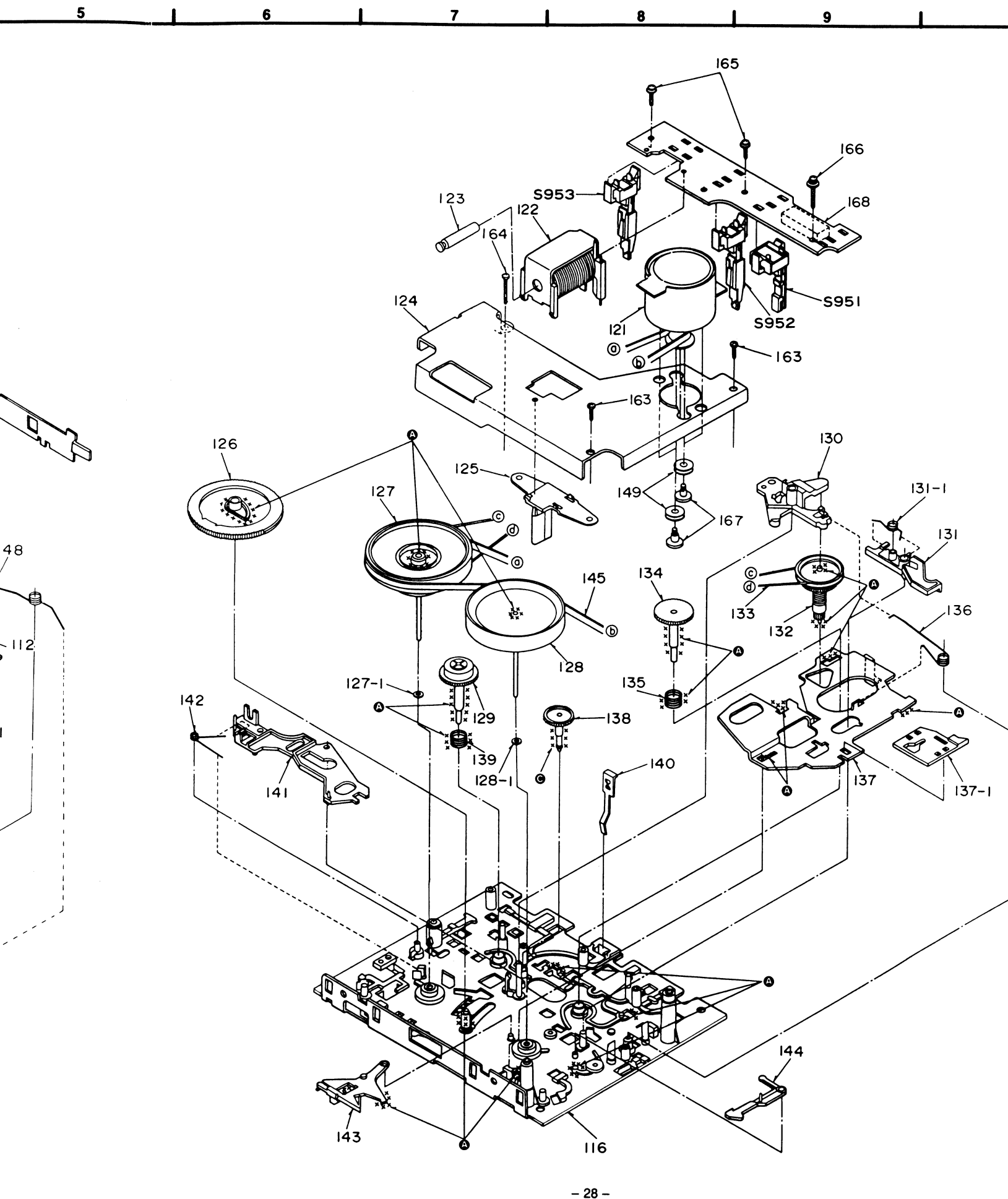
## ■ CABINET PARTS LOCATION

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MECHANISM PARTS LOCATION •DECK 1



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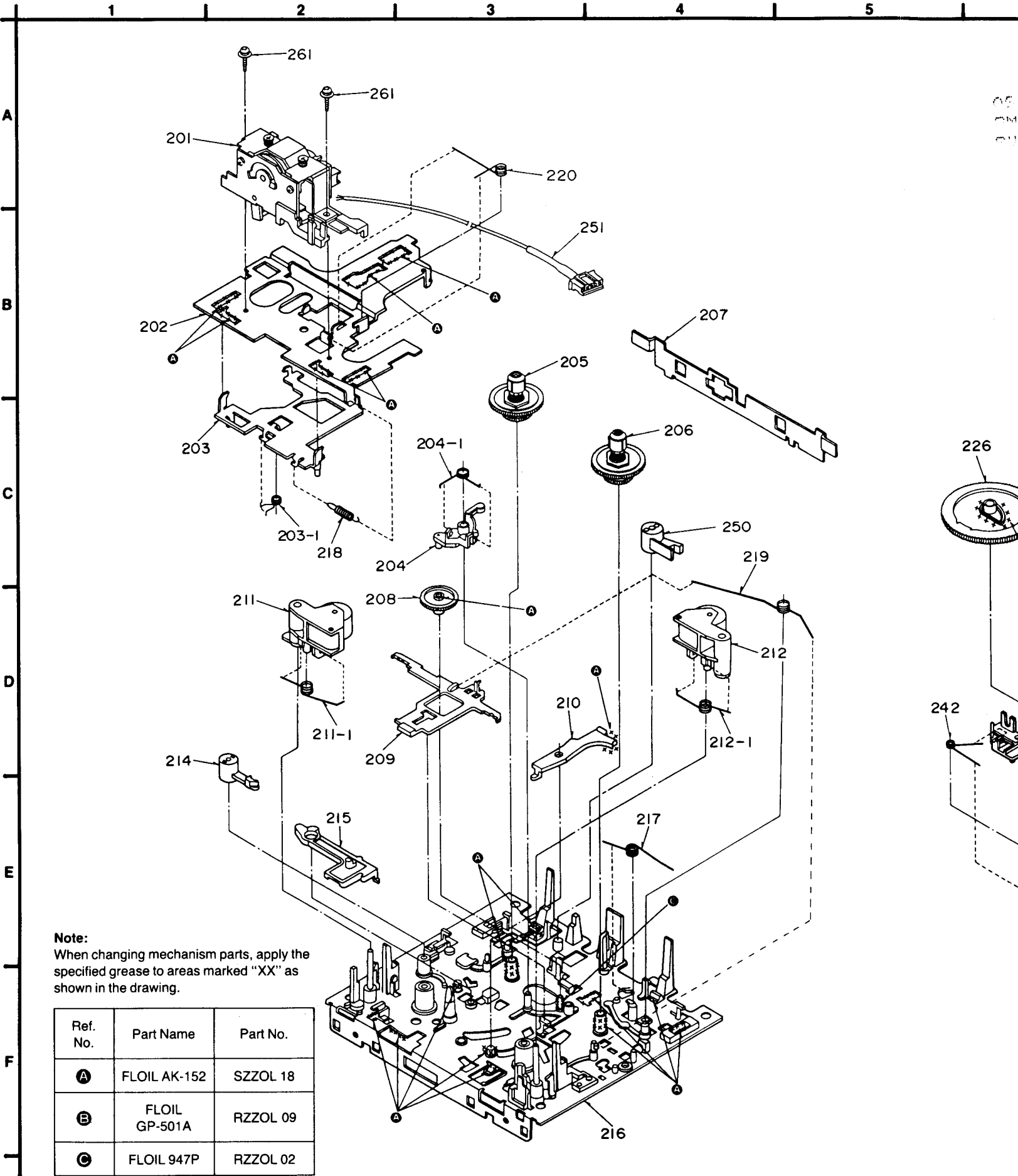


Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS		143	RUB515ZA	LEVER	
		DECK1 (P. B)		144	RUB509ZA	LEVER	
				145	RDV108ZA	BELT	
				148	RJW144ZA	SPRING	
101	RXQ0051-2	HEAD ASS' Y (P. B)		149	RHG3032ZA	RUBBER	
102	RJA793ZF	CHASSIS		150	RNL180ZB	LEVER	
103	RZLAR300	LEVER ASS' Y		151	REX0061	CABLE ASS' Y	
103-1	RJW143ZA	SPRING		161	XTW2+6L	SCREW	
104	1UB0089ZA	ARM		163	XTN26+7J	SCREW	
104-1	RJW148ZA	SPRING		164	RHE5203ZA	SCREW	
105	1DM0018ZB	REEL TABLE ASS' Y		165	XTW2+8S	SCREW	
106	1DM0017ZB	REEL TABLE ASS' Y		166	XYC2+JF16	SCREW	
107	RML0069-1	LEVER		167	RHD26002	SCREW	
108	RDG5772ZC	GEAR		168	RJS7T7ZA	CONNECTOR (7P)	
109	RUB508ZB	LEVER					
110	RUB506ZB	LEVER					
111	1UB0088ZB	PINCH ROLLER					
111-1	RJW141ZA	SPRING					
112	1UB0087ZB	PINCH ROLLER					
112-1	RJW140ZC	SPRING					
114	RNL1ZD	ARM					
115	RUB503ZD	LEVER					
116	RFKRAA0320	CHASSIS ASS' Y					
117	RJW142ZA	SPRING					
118	RUD105ZA	SPRING					
120	RJW139ZA	SPRING					
121	RFM133ZA	MOTOR ASS' Y					
122	1UE0015ZB	PLUNGER					
123	RUB428ZE	SHAFT					
124	RJL1030YA	PLATE					
125	RMD5014ZC	SPACER					
126	RDG5927ZG	GEAR					
127	1DW0037ZB	FLYWHEEL ASS' Y					
127-1	RNW139ZA	WASHER					
128	1DW0038ZB	FLYWHEEL ASS' Y					
128-1	RNW138ZA	WASHER					
129	1DG0006ZB	GEAR					
130	RUB513ZD	LEVER					
131	1UB0091ZA	LEVER					
131-1	RJW146ZA	SPRING					
132	1DR0011ZB	PULLEY ASS' Y					
133	RDV90ZB	BELT					
134	RDG5769ZA	GEAR					
135	RJQ111ZB	SPRING					
136	RJW145ZA	SPRING					
137	1UB0090ZA	ROD					
137-1	RUB512ZB	ROD					
138	RDG5773ZB	GEAR					
139	RJQ112ZA	SPRING					
140	RUS609ZC	SPRING					
141	RUB514ZC	LEVER					
142	RJW147ZA	SPRING					



Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		DECK2 (R/P)					
201	RXQ007-2	HEAD ASS'Y (R/P)		243	RUB515ZA	LEVER	
202	RJA793ZF	CHASSIS		244	RUB509ZA	LEVER	
203	RZLAR300	LEVER ASS'Y		245	RDV108ZA	BELT	
203-1	RUW143ZA	SPRING		249	RHG3032ZA	RUBBER	
204	1UB0089ZA	ARM		250	RNL180ZB	LEVER	
204-1	RUW148ZA	SPRING		251	REX0059	CABLE ASS'Y	
205	1DM0018ZB	REEL TABLE ASS'Y		261	XTW2+6L	SCREW	
206	1DM0017ZB	REEL TABLE ASS'Y		263	XTN26+7J	SCREW	
207	RML0069-1	LEVER		264	RHE5203ZA	SCREW	
208	RDG5772ZC	GEAR		265	XTW2+8S	SCREW	
209	RUB508ZB	LEVER		266	XVC2+JF16	SCREW	
210	RUB506ZB	LEVER		267	RHD26002	SCREW	
211	1UB0088ZB	PINCH ROLLER		268	RJS1077ZA	CONNECTOR (10P)	
211-1	RUW141ZA	SPRING					
212	1UB0087ZB	PINCH ROLLER					
212-1	RUW140ZC	SPRING					
214	RNL12ZD	ARM					
215	RUB503ZD	LEVER					
216	RFKRAA0320	CHASSIS ASS'Y					
217	RUW142ZA	SPRING					
218	RUD105ZA	SPRING					
219	RUW144ZA	SPRING					
220	RUW139ZA	SPRING					
221	RFM133ZA	MOTOR ASS'Y					
222	1UE0015ZB	PLUNGER					
223	RUB428ZE	SHAFT					
224	RUL1030YA	PLATE					
225	RMD5014ZC	SPACER					
226	RDG5927ZG	GEAR					
227	1DM0037ZB	FLYWHEEL ASS'Y					
227-1	RNW139ZA	WASHER					
228	1DM0038ZB	FLYWHEEL ASS'Y					
228-1	RNW138ZA	WASHER					
229	1DG0006ZB	GEAR					
230	RUB513ZD	LEVER					
231	1UB0091ZA	LEVER					
231-1	RUW146ZA	SPRING					
232	1DR0011ZB	PULLEY ASS'Y					
233	RDV90ZB	BELT					
234	RDG5769ZA	GEAR					
235	RJQ111ZB	SPRING					
236	RUW145ZA	SPRING					
237	1UB0090ZA	ROD					
237-1	RUB512ZB	ROD					
238	RDG5773ZB	GEAR					
239	RJQ112ZA	SPRING					
240	RUS609ZC	SPRING					
241	RUB514ZC	LEVER					
242	RUW147ZA	SPRING					

MECHANISM PARTS LOCATION •DECK 2



## MECHANISM PARTS LOCATION • DECK 2

